

CLAIMS

1. Apparatus for monitoring the use of a bandwidth-on-demand network, comprising first recording means for recording connections established on the network, an application server controlling use of a specified application, the application server having second recording means for recording calls made on the network using that application, and a monitoring device for receiving inputs from the first and second recording means, and generating an output according to said inputs.
2. Apparatus according to claim 1, wherein the second recording means comprises means to receive information transmitted to the application server by the end users and to generate an output according to said inputs.
3. Apparatus according to claim 2, wherein the application server has means for monitoring the activities of the end users and the information provided by the end users, and generating an output accordingly.
4. Apparatus according to claim 3, wherein the application server comprises means for interacting with end users such that the application server can monitor the activities of the end users.
5. Apparatus according to claim 1, 2, 3 or 4, wherein the apparatus generates billing information according to the inputs from the recording means.
6. Apparatus according to claim 1, claim 2, claim 3, claim 4, or claim 5 wherein means are provided to make connections available at a plurality of bandwidths, the apparatus being arranged to generate different outputs at different bandwidths.
7. Apparatus according to claim 1, claim 2, claim 3, claim 4, claim 5, or claim 6, wherein the application server is a peer-to-peer file transfer controller.

8. Apparatus according to claim 7, wherein the controller has means for recording user inputs relating to the quality of files available for transfer.

9. Apparatus according to claim 8, comprising means for adjusting the output
5 according to the rated quality of the information accessed.

10. A usage-monitoring process for a bandwidth-on-demand network, wherein connections established on the network are recorded, and an application server controlling use of a specified application also records calls made on the network
10 using that application, and an output is generated according to which connections make use of that application.

11. A process according to claim 10, wherein the output is a charge to be made for the use of the network.

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12. A process according to claim 11, wherein a charge is also made to a second account when a connection is made making use of the said application server.

13. A process according to claim 12, wherein the charges to be made to the
20 second account are determined by the information transmitted to the application server by the end users.

14. A process according to any of claims 10 to 13, wherein the application server monitors the activities of the end users and the information provided by the
25 end users to determine the output to be generated.

15. A process according to any of claims 10 to 14, wherein the end users interact with the application server such that the application server can monitor the activities of the end users.

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16. A telecommunications connection process, wherein connections are made available at a first bandwidth and one or more higher bandwidths, and a billing process according to claim 11, claim 12, claim 13, claim 14, claim 15 or claim 16 is applied to connections established at the higher bandwidths but not at the first
5 bandwidth.

17. A process according to claim 10, claim 11, claim 12, claim 13, claim 14, claim 15, or claim 16, wherein the application server is a peer-to-peer file transfer controller.
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18. A process according to claim 17, wherein the controller has means for recording user inputs relating to the quality of files available for transfer.

19. A process according to claim 18, wherein the outputs are adjusted according
15 to the rated quality of the information accessed.

20. A billing process for a bandwidth-on-demand network, wherein a billing system records connections established on the network, and an application server controlling use of a specified application also records calls made on the network
20 using that application, and instructs a billing engine which connections made use of that application, and wherein such calls are charged by the billing engine at different rates according to whether those connections make use of that application.

21. A process according to claim 20, wherein connections making use of the
25 application are charged at a lower rate than other connections.

22. A process according to claim 20 or claim 21, wherein a charge is also made to a second account when a connection is made making use of the said application server.
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23. A process according to claim 22, wherein the charges to be made to the second account are determined by the information transmitted to the application server by the end users.

24. A process according to claim 23, wherein the application server monitors the activities of the end users and the information provided by the end users to determine the charges to be made to the second account.

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25. A process according to claim 23, wherein the end users interact with the central application server using programming information having security measures to allow the central server to monitor the activities of the end users.

10 26. A process according to claim 20, 21, 22, 23, 24 or 25 wherein connections are made available at a first low-bandwidth connection, and the billing process is applied to connections established at higher bandwidths.

27. A process according to any claim 20, 21, 22, 23, 24, 25 or 26, wherein the
15 application server is a peer-to-peer file transfer controller.

28. A process according to claim 27, wherein the controller has means for recording user inputs relating to the quality of files available for transfer.

20 29. A process according to claim 28, wherein the call charges are adjusted according to the rated quality of the information accessed.

30. A billing system for a bandwidth-on-demand network, comprising first recording means for recording connections established on the network, an application
25 server controlling use of a specified application, the application server having second recording means for recording calls made on the network using that application, and a billing engine for receiving inputs from the first and second recording means, and for generating charges for calls at different rates according to said inputs.

30 31. A billing system according to claim 30, wherein the second recording means comprises means to receive information transmitted to the application server by the end users and to generate charges according to said inputs.

32. A billing system according to claim 31, wherein the application server has means for monitoring the activities of the end users and the information provided by the end users to determine the charges to be made.
- 5 33. A billing system according to claim 32, wherein the central application server comprises means for interacting with end users using programming information having means to allow the central server to monitor the activities of the end users.
34. A billing system according to claim 30, 31, 32 or 33, comprising an interface
10 with a further billing system for transferring accounting information to the further billing system.
35. A system according to claim 30, claim 31, claim 32, claim 33, or claim 34 wherein means are provided to make connections available at a plurality of
15 bandwidths, the billing system being arranged to charge different rates at different bandwidths.
36. A system according to claim 35, wherein one of the said rates is zero.
- 20 37. A system according to claim 30, claim 31, claim 32, claim 33, claim 34, claim 35 or claim 36, wherein the application server is a peer-to-peer file transfer controller.
38. A system according to claim 37, wherein the controller has means for
25 recording user inputs relating to the quality of files available for transfer.
- 39 A system according to claim 38, comprising means for adjusting call charges according to the rated quality of the information accessed.